Development of a Dainish infrastructure for spatial information (DAISI)

under the wings of digital management

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Development of a DAnish Infrastructure for Spatial Information
DAISI
- under the wings of e-Government

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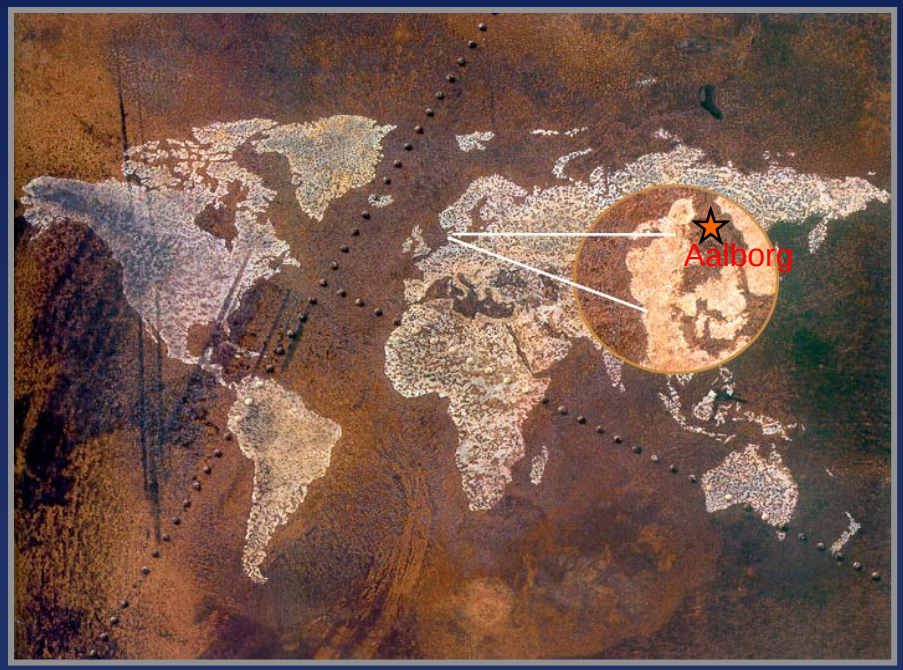


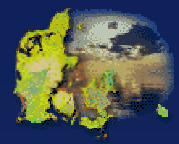
Outline:

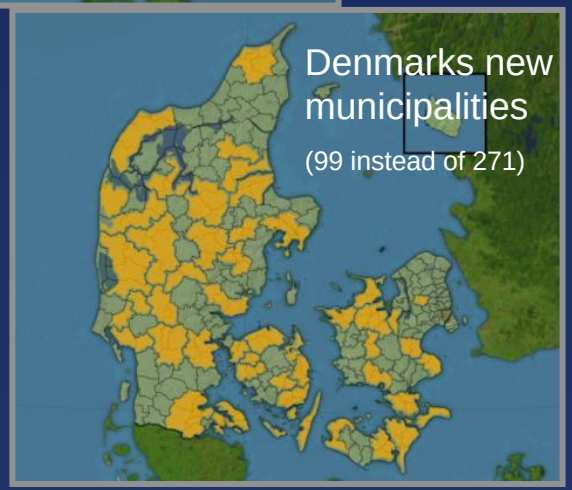
1) Reforms in Denmark*
2) E-government and e-governance
3) The Service Community for Geodata
4) Initiatives in Denmark
5) Conclusion and recommendations

**With an area of 43,080 sq. km Denmark is the smallest of the Scandinavian countries. The great majority - about 85% - of the country's 5,3 million inhabitants lives in towns or urban areas, and approximately one third of the total population lives in the metropolitan region of Copenhagen.*

The ”new” Denmark

Structure Reform





Denmark is under transformation:

Reforms:

- municipal reform
- IT-structure reform
- law court reform (including land registration reform and police reform)
- welfare reform
- school reform
- university reform
- etc.

The digital Denmark

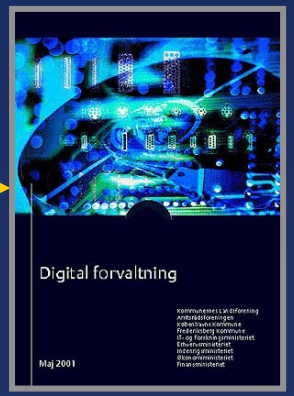
- e-government and e-governance (digital management), e-communication

The government wants:

- a more efficient case management
- increased citizen service
- increased self-service
- increased dialogue

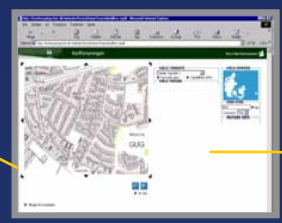
The private business and the citizens want:

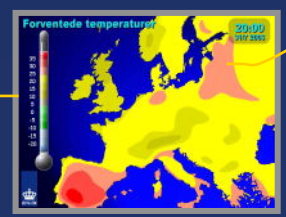
- Insight and influence



80% of information used in public administrations can be located geographically

Electronic Case Management Systems





The Internet is approved as communication channel

The project “e-Government”

Partners:

- the state
- the counties (now the new regions)
- the old municipalities (now the new municipalities)

Vision:

- that digitalization shall help create an efficient and coherent public sector which delivers service and quality at a high level and puts the citizens and enterprises in the centre

The e-Government Board

The Digital Taskforce

The Geo-data Report

2002

Report conclusions:

On one hand Denmark is in a strong position in the geo-data field and has good bases of using geo-data offensively in digital management. This is among other things due to the fact that a number of basic registers are in place and that there has been invested strongly in the digitizing of map products.

On the other hand it must be stated that the existing co-operation structures in the field are too uncommitted to obtain the most expedient geo-data utilization and production across authorities and that it has not been possible to a sufficient extent to prioritize between different wishes and needs in the field.

Geo-data/geo-information is often used as synonym of geographic data/geographic information or (geo)spatial data/(geo)spatial information. Data is raw facts (numbers, letters etc.). Information is adapted and structured data. Maps are visual forms of geo-information

The Service Community for Geodata

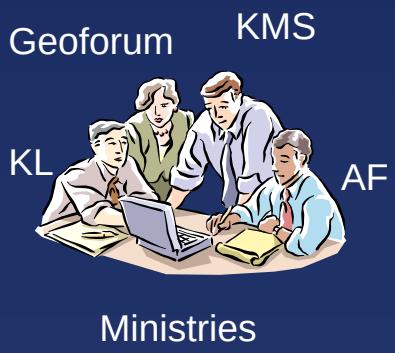
2002 - ?

Objectives:

- replace existing formal and informal co-operation forums

Main topics:

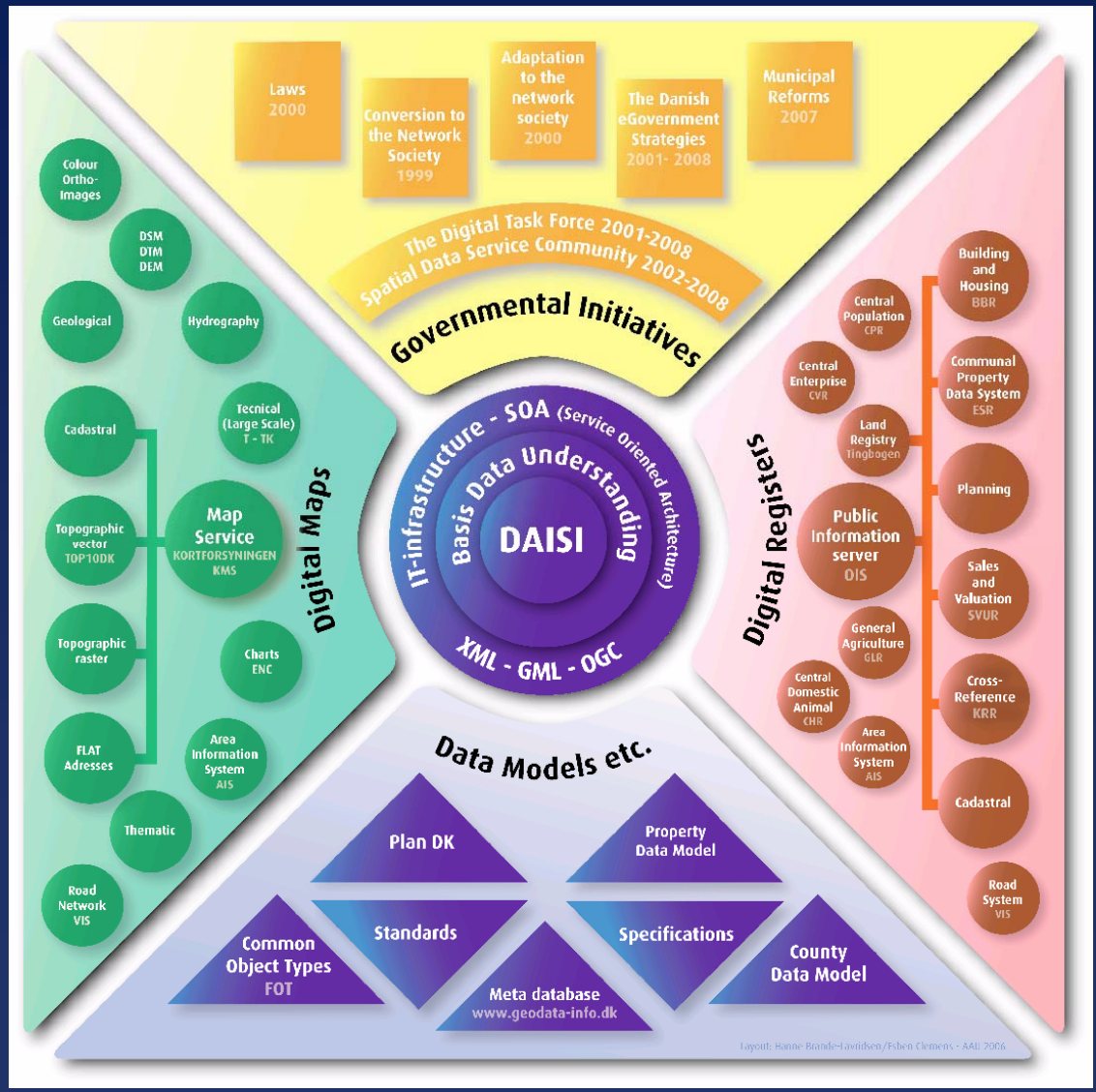
- new thinking concerning basic data
- new thinking concerning economy and law in the geo-data field
- uncovering of ongoing projects within the geo-data field



Initiatives and results:

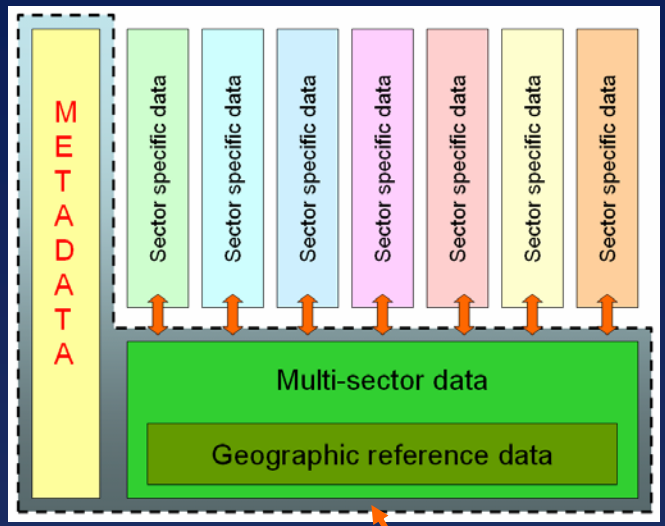
- WMS cookbook (2003)
- WFS cookbook) (2004)
- GML basis geometries (2004)
- XML and OIOXML (public standards)
- Basis data specifications (2004)
- PlanDK 2 (2005)
- FOT specifications (2006)

Building stones for a DAnish Infrastructure for Spatial Information (DAISI)



The basic data project

2003 - 2004



Goal:

To create connection between spatial data collections by linking them to authorized and well-documented basic maps or other geo-references

Basic data are defined as comprising:

- reference data,
- multi-sector data and
- metadata

(The definition of basic data originates from the work in the EU to prepare a directive for Infrastructure for Spatial InfoRmation in Europe (INSPIRE))

Challenges:

- specification of reference data
- specification and identification of multi-sector data

The FOT (Fælles ObjektTyper) project

(Specification on shared object types)

Objekttype	Geometri	Basisdatatype
BYGNING	Flade	Reference
VEJMIDTE	Linie	Reference
JERNBANE	Linie	Reference
HAVN	Linie	Reference
KYST	Linie	Reference
VANDLØB	Linie	Reference
BY	Flade	Reference
KOMMUNE	Flade	Reference
STEDNAVN	Punkt	Reference
BYKERNE	Flade	Multisektor
INDUSTRI	Flade	Multisektor
LAV BEBYGGELSE	Flade	Multisektor
HØJ BEBYGGELSE	Flade	Multisektor
VEJKANT	Linie	Multisektor
STANDSNINGSSTED	Punkt	Multisektor
TEKNISK AREAL	Flade	Multisektor
BASSIN	Flade	Multisektor
HØJSPÆNDINGSLEDNING	Linie	Multisektor
BYGVÆRK	Linie	Multisektor
ANLÆG DIVERSE	Linie	Multisektor
HØFDE	Linie	Multisektor
PARKERING	Linie	Multisektor
TELEMAST	Punkt	Multisektor
VINDMØLLE	Punkt	Multisektor
MAST	Punkt	Multisektor
STATUE/STEN	Punkt	Multisektor
SKOV	Flade	Multisektor
HEDE	Flade	Multisektor
VÅDOMRÅDE	Flade	Multisektor
KRAT/BEVOKSNING	Flade	Multisektor
SAND/KLIT	Flade	Multisektor
RÅSTOFOMRÅDE	Flade	Multisektor
FREDET FORTIDSOMRÅDE	Flade	Multisektor
LANDHEGN	Linie	Multisektor
BYHEGN	Linie	Multisektor
BRUGSGRÆNSE	Linie	Multisektor
SKRÆNT	Linie	Multisektor
DIGE	Linie	Multisektor
TRÆ	Punkt	Multisektor
TRÆGRUPPE	Punkt	Multisektor
FREDET FORTIDSPUNKT	Punkt	Multisektor
SØ	Flade	Multisektor
AFVANDINGSGRØFT	Linie	Multisektor
VANDLØBSBRED	Linie	Multisektor
BADE/BÅDEBRO	Linie	Multisektor
ORTOFOTO	Billede	Multisektor
SYSTEMLINIE	Linie	Sektor
HELLE	Linie	Sektor
CHIKANE	Linie	Sektor
TRAFIKHEGN	Linie	Sektor
TELEMASTEFUNDAMENT	Flade	Sektor
HØJSPÆNDINGSMASTEFUNDAMENT	Flade	Sektor
NEDLØBSRIST	Punkt	Sektor
BRØNDÆKSEL	Punkt	Sektor
INSTALLATIONSSKAB	Punkt	Sektor

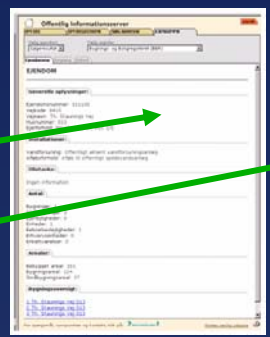
Integrated production and maintenance of digital map objects from:

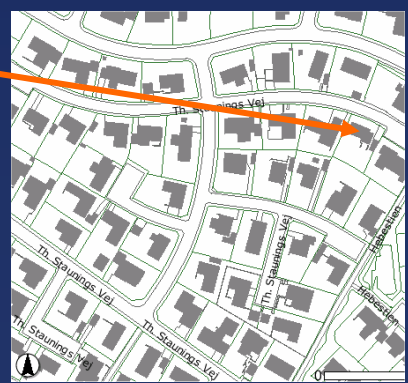
- technical maps
- topographic maps

The FOT (Fælles ObjektTyper) project

(Specification on shared object types)

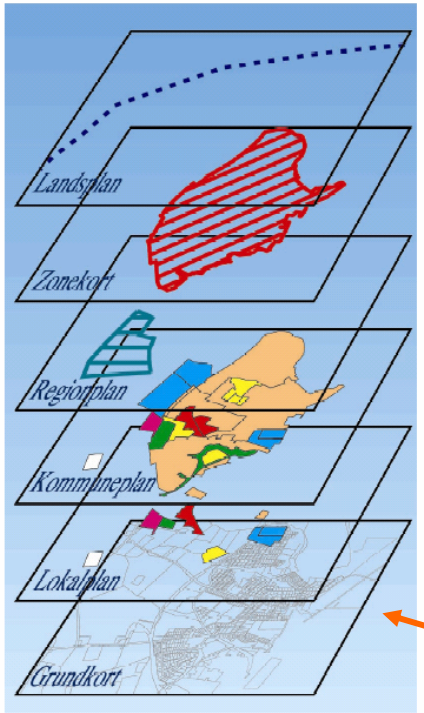
A building is many things!





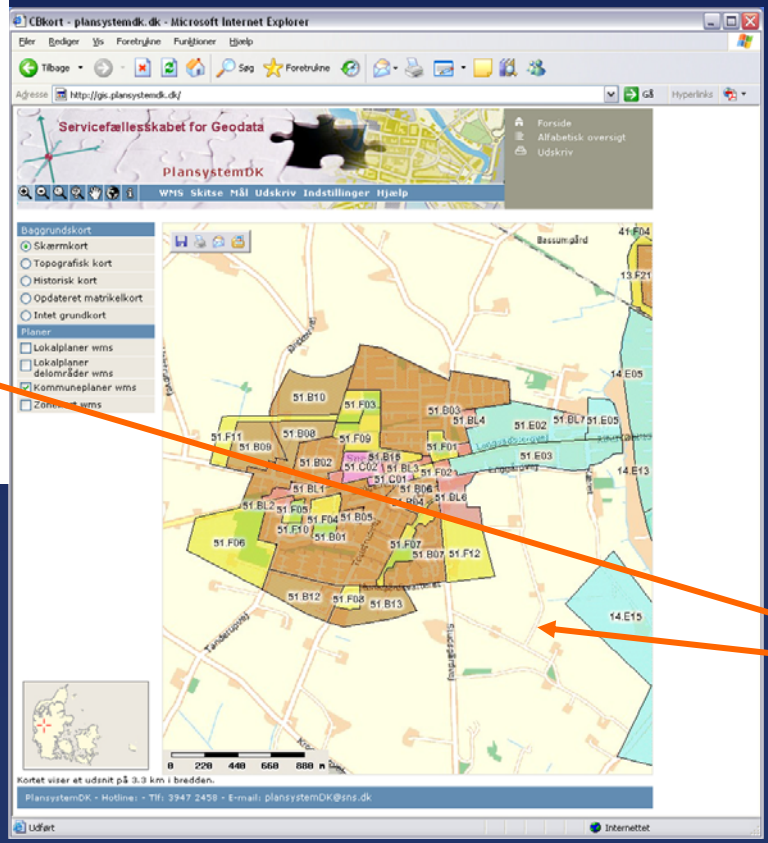
The Planning Data Project

PlanDK
- datamodel for digitale plandata



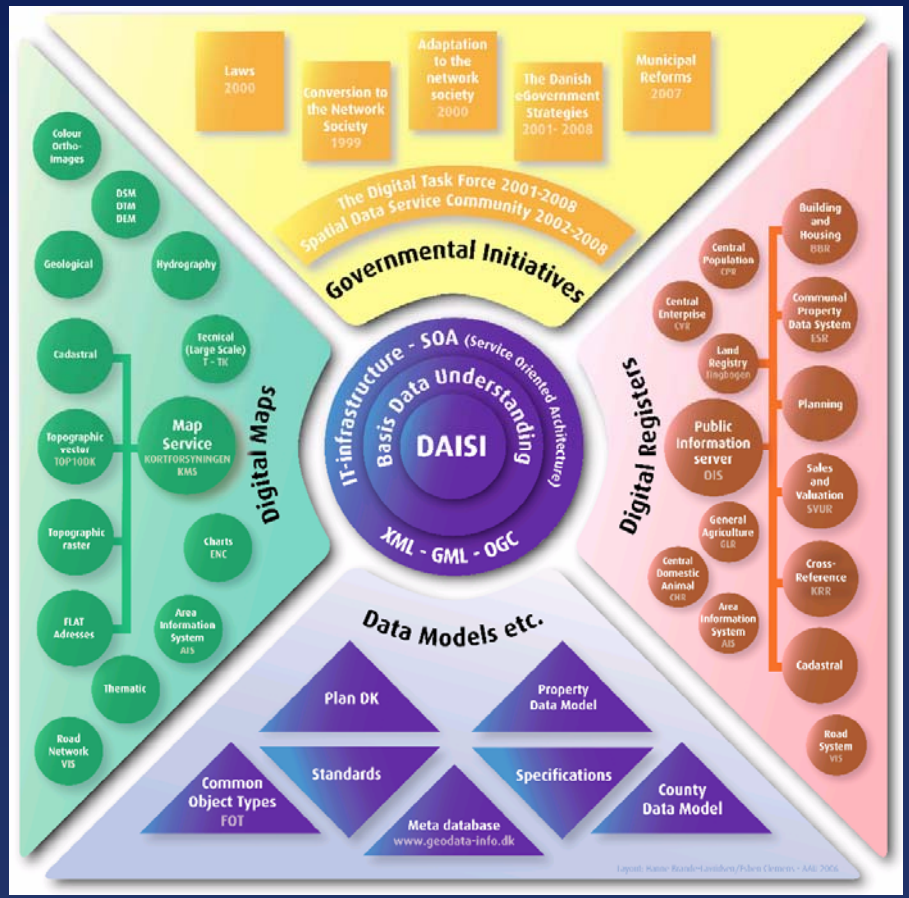
PlanDK 2

Physical plan bindings with their property bindings



DAISI

Conclusion and Recommendations



Praiseworthy :

Many good (bottom up) initiatives towards a DAISI (digital maps and registers, data-models, standards, specifications etc.)

Barriers:

To informal co-operation structure (in spite of good initiatives from The Service Community for Geodata)

Price politics

Ownerships

Missing :

A broad political anchoring at the highest level (a geo-data act)

Earmarked money from the government to support the geo-data marked and geo-data projects

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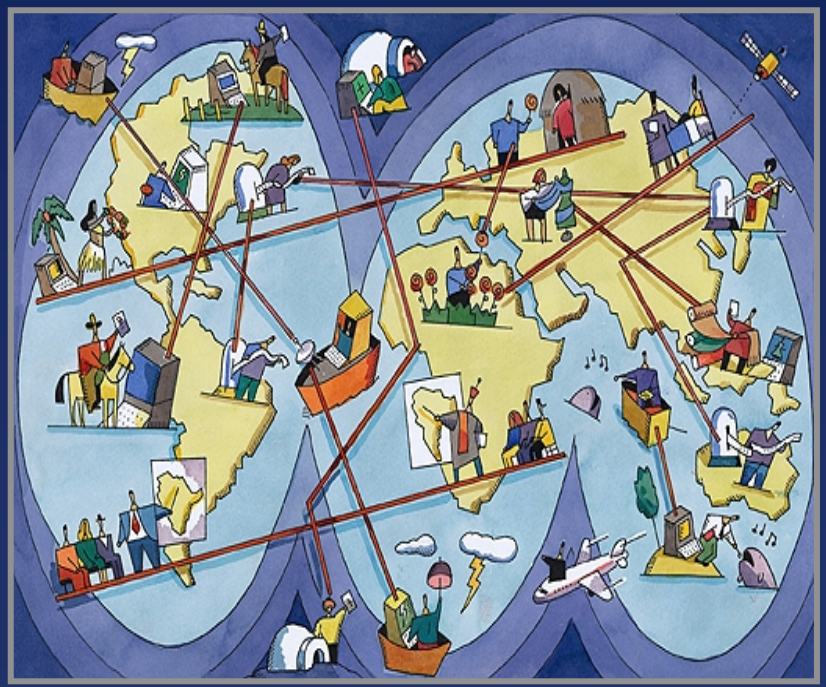

Thank you for your attention